

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn) A bootstrap circuit comprising a thin film transistor
wherein:
a channel forming region of the thin film transistor comprises a polycrystalline semiconductor, and
the thin film transistor is a depletion mode transistor.
2. (Withdrawn) The bootstrap circuit according to claim 1,
wherein the thin film transistor is directly connected to an output terminal.
3. (Withdrawn) The bootstrap circuit according to claim 1,
wherein the polycrystalline semiconductor film is provided over either a quartz substrate or a glass substrate.
4. (Withdrawn) A bootstrap circuit comprising a thin film transistor
wherein:
a channel forming region of the thin film transistor comprises a polycrystalline semiconductor which is formed by crystallizing an amorphous silicon, and
the thin film transistor is a depletion mode transistor.
5. (Withdrawn) The bootstrap circuit according to claim 4,
wherein the thin film transistor is directly connected to an output terminal.
6. (Withdrawn) The bootstrap circuit according to claim 4,

wherein the polycrystalline semiconductor film is provided over either a quartz substrate or a glass substrate.

7. (Currently Amended) A driver circuit comprising:
 - a shift register;
 - a buffer circuit electrically connected to the shift register, comprising a source follower circuit comprising a thin film transistor; and
 - an analog memory electrically connected to the buffer circuit,wherein:
 - a channel forming region of the thin film transistor comprises a polycrystalline semiconductor,
 - the thin film transistor is a depletion mode transistor, and
 - an impurity is doped to a channel forming region of a semiconductor layer of the thin film transistor comprises a metal element which is capable of promoting the crystallization of a semiconductor film at a concentration of 5×10^{12} to 5×10^{14} atoms/cm².
8. (Original) The driver circuit according to claim 7,
wherein the thin film transistor is directly connected to an output terminal.
9. (Original) The driver circuit according to claim 7,
wherein the polycrystalline semiconductor film is provided over either a quartz substrate or a glass substrate.
10. (Currently Amended) A driver circuit comprising:
 - a shift register;
 - a buffer circuit electrically connected to the shift register, comprising a source follower circuit comprising a thin film transistor; and

an analog memory electrically connected to the buffer circuit,

wherein:

a channel forming region of the thin film transistor comprises a polycrystalline semiconductor which is formed by crystallizing an amorphous silicon,

the thin film transistor is a depletion mode transistor, and

an impurity is doped to a channel forming region of a semiconductor layer of the thin film transistor comprises a metal element which is capable of promoting the crystallization of a semiconductor film at a concentration of 5×10^{12} to 5×10^{14} atoms/cm².

11. (Original) The driver circuit according to claim 10,

wherein the thin film transistor is directly connected to an output terminal.

12. (Original) The driver circuit according to claim 10,

wherein the polycrystalline semiconductor film is provided over either a quartz substrate or a glass substrate.

13. (Currently Amended) A driver circuit comprising:

a shift register;

a buffer circuit electrically connected to the shift register, comprising a bootstrap circuit comprising a thin film transistor; and

an analog memory electrically connected to the buffer circuit,

wherein:

a channel forming region of the thin film transistor comprises a polycrystalline semiconductor,

the thin film transistor is a depletion mode transistor, and

an impurity is doped to a channel forming region of a semiconductor layer of the thin film transistor comprises a metal element which is capable of promoting the

~~crystallization of a semiconductor film at a concentration of 5×10^{12} to 5×10^{14} atoms/cm².~~

14. (Original) The driver circuit according to claim 13,

wherein the thin film transistor is directly connected to an output terminal.

15. (Original) The driver circuit according to claim 13,

wherein the polycrystalline semiconductor film is provided over either a quartz substrate or a glass substrate.

16. (Currently Amended) A driver circuit comprising:

a shift register;

a buffer circuit electrically connected to the shift register, comprising a bootstrap circuit comprising a thin film transistor; and

an analog memory electrically connected to the buffer circuit,

wherein:

a channel forming region of the thin film transistor comprises a polycrystalline semiconductor which is formed by crystallizing an amorphous silicon,

the thin film transistor is a depletion mode transistor, and

an impurity is doped to a channel forming region of a semiconductor layer of the thin film transistor comprises a metal element which is capable of promoting the crystallization of a semiconductor film at a concentration of 5×10^{12} to 5×10^{14} atoms/cm².

17. (Original) The driver circuit according to claim 16,

wherein the thin film transistor is directly connected to an output terminal.

18. (Original) The driver circuit according to claim 16,

wherein the polycrystalline semiconductor film is provided over either a quartz substrate or a glass substrate.

19. (Withdrawn) A display device comprising:
 - an insulating surface;
 - a signal line over the insulating surface;
 - a scanning line over the insulating surface;
 - a pixel electrically connected to the signal line and the scanning line; and
 - a driver circuit electrically connected to the scanning line, comprising:
 - a shift register;
 - a buffer circuit electrically connected to the shift register, comprising a bootstrap circuit comprising a thin film transistor; and
 - an analog memory electrically connected to the buffer circuit,
- wherein:
 - a channel forming region of the thin film transistor comprises a polycrystalline semiconductor, and
 - the thin film transistor is a depletion mode transistor.
20. (Withdrawn) The display device according to claim 19,
wherein the thin film transistor is directly connected to an output terminal.
21. (Withdrawn) The display device according to claim 19,
wherein the polycrystalline semiconductor film is provided over either a quartz substrate or a glass substrate.
22. (Withdrawn) A display device comprising:
 - an insulating surface;
 - a signal line over the insulating surface;

a scanning line over the insulating surface;

a pixel electrically connected to the signal line and the scanning line; and

a driver circuit electrically connected to the scanning line, comprising:

a shift register;

a buffer circuit electrically connected to the shift register, comprising a bootstrap circuit comprising a thin film transistor; and

an analog memory electrically connected to the buffer circuit,

wherein:

a channel forming region of the thin film transistor comprises a polycrystalline semiconductor which is formed by crystallizing an amorphous silicon, and

the thin film transistor is a depletion mode transistor.

23. (Withdrawn) The display device according to claim 22,

wherein the thin film transistor is directly connected to an output terminal.

24. (Withdrawn) The display device according to claim 22,

wherein the polycrystalline semiconductor film is provided over either a quartz substrate or a glass substrate.

25. (Currently Amended) The driver circuit according to claim 7, wherein the metal element is nickel the semiconductor layer of the thin film transistor comprises a metal element which is capable of promoting the crystallization of a semiconductor film.

26. (Currently Amended) The driver circuit according to claim 10, wherein the metal element is nickel the semiconductor layer of the thin film transistor comprises a metal element which is capable of promoting the crystallization of a semiconductor film.

27. (Currently Amended) The driver circuit according to claim 13, wherein the metal element is nickel the semiconductor layer of the thin film transistor comprises a metal element which is capable of promoting the crystallization of a semiconductor film.

28. (Currently Amended) The driver circuit according to claim 16, wherein the metal element is nickel the semiconductor layer of the thin film transistor comprises a metal element which is capable of promoting the crystallization of a semiconductor film.

29. (New) The driver circuit according to claim 25, wherein the metal element is nickel.

30. (New) The driver circuit according to claim 26, wherein the metal element is nickel.

31. (New) The driver circuit according to claim 27, wherein the metal element is nickel.

32. (New) The driver circuit according to claim 28, wherein the metal element is nickel.